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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,843	01/11/2002	Louis J. Adimari	DAR-54-98	4456

7590 01/28/2005

Attn: AMSTA-AR-GCL
U.S. Army TACOM-ARDEC
M. Sachs / Building 3
Picatinny Arsenal, NJ 07806-5000

EXAMINER

NGUYEN, TRINH T

ART UNIT	PAPER NUMBER
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3644

DATE MAILED: 01/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



Office Action Summary

Application No.

10/042,843

Applicant(s)

ADIMARI, LOUIS J.

Examiner

Trinh T Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4 and 15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of claims 4 and 15 is withdrawn in view of the newly discovered reference(s) to Fowler et al. (US 6,453,821). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 4 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 4 and 15: the phrases "the expulsion gas pressure", "the projectile base assembly", "the grenades", "the projectile body section", and "the air stream" lack proper antecedent basis.

Claim Rejections – 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bueno et al. (US 4,726,297) in view of Fowler et al. (US 6,453,821).

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Bueno et al. disclose a grenade dispense mechanism for non-spin dual purpose improved conventional munitions wherein the dispense mechanism comprises:

- means (gunpowder 15) to initiate grenade payload expulsion;
- means (cones 4, spring 14, radial pin 13, and extending pin 103) to expulse grenade payload from projectile body;
- means (plate 2) to seal the expulsion gas pressures;
- means (member 19) to contain grenade payload;
- means (shearing pins 21 and 11) to separate the projectile base assembly (20) from the projectile body (19);
- means to cause the grenades to disperse and stabilize to form uniform pattern effects area over the target (see lines 1-37 of col. 3).

Bueno et al. disclose most of the claimed invention except for the means to seal the expulsion gas pressures to prevent excessive gas blow-by as the said grenade payload travels through the projectile body section is an obturator band designed with a set of grooves to weaken the band so that said band will fall apart under spin forces as it emerges from the projectile body section into the air stream.

Fowler et al. teach a similar device as that of Bueno et al. in which Fowler et al.'s device having a means to seal the expulsion gas pressures to prevent excessive gas blow-by as the grenade payload travels through the projectile body section is an obturator band (210) designed with a set of grooves (214) to weaken the band so that the band will fall apart under spin forces as it emerges from the projectile body section into the air stream. It would have been obvious to one having ordinary skill in the art at

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the time the invention was made to have modified the device of Bueno et al. so as to include an obturator band designed with a set of grooves, in a similar manner as taught in Fowler et al., since to do so would seal the expulsion gas pressures to prevent excessive gas blow-by as the grenade payload travels through the projectile body section.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trinh T Nguyen whose telephone number is (703) 306-9082. The examiner can normally be reached on M-F (9:30 A.M to 6:00 P.M).

The examiner's supervisor, Teri Luu can be reached on (703) 305-7421. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



Trinh Nguyen
Patent Examiner, AU 3644
1/26/05